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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,984	07/29/2003	Jurgen G. Schmidt	S-100,648	9223
35068	7590	11/03/2004	EXAMINER	
UNIVERSITY OF CALIFORNIA LOS ALAMOS NATIONAL LABORATORY P.O. BOX 1663, MS A187 LOS ALAMOS, NM 87545			EPPERSON, JON D	
			ART UNIT	PAPER NUMBER
			1639	

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/629,984

Applicant(s)

SCHMIDT ET AL.

Examiner

Jon D Epperson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-16 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Election/Restriction*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-10, drawn to a composition described as a “solid resin support having a multifunctional chemical moiety covalently attached thereto”, classified variously in class 429, subclass 407; 525, subclass 54.11.
  - II. Claims 11-14, drawn to a method for covalently attaching a multifunctional chemical moiety to a solid resin support, classified variously in class 585, subclass 424; class 435, DIG 40.
  - III. Claims 15-16, drawn to a method for using the multifunctional chemical moiety-solid resin support composite in a solid phase synthesis process, classified variously in class 435, DIG 49; class 436, subclass 518.
2. The inventions are distinct, each from the other because of the following reasons:
3. Groups I-III represent separate and patentably distinct inventions. Groups I-III are drawn to different methods and/or products (i.e., e.g., which are directed to different purposes, use different materials; recite different method or process steps for the preparation of different product(s), screening of different characteristics, such as different binding affinities, different biochemical reaction conditions, etc. or lead to different final results). Therefore, the groups that describe these products and methods have different issues regarding patentability and enablement, and represent patentably distinct subject matter, which merits separate and

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burdensome searches. Art anticipating or rendering obvious each of the above-identified groups respectively would not necessarily anticipate or render obvious another group, because they are drawn to different inventions that have different distinguishing features.

4. Groups I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different products or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the process as claimed (1) can be used to make other and materially different products (e.g., the process can be used to make a library for screening or for making affinity and/or hydrophobic chromatography applications.

5. Inventions I and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the product as claimed (2) can be used in a materially different process of using that product (e.g., could be used in affinity and/or hydrophobic chromatography).

6. These inventions have acquired a separate status in the art as shown by their different classification and/or divergent subject matter. The different methods and products would require

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completely different searches in both the patent and non-patent databases, and there is no expectation that the searches would be coextensive. Therefore, this does create an undue search burden, and restriction for examination purposes as indicated is proper.

### *Species Election*

7. This application contains claims directed to patentably distinct species of the claimed invention for Groups I-III. Election is required as follows.

8. If applicant elects the invention of Group I, applicant is required to elect from the following patentably distinct species. Claim 1 is generic.

#### Subgroup 1: Species of solid resin support having a multifunctional chemical moiety covalently attached thereto (e.g., see claim 1)

Applicant must elect for purposes of search a *single species* of solid resin support having a multifunctional chemical moiety covalently attached thereto. Furthermore, applicant must show *all* atoms and bonds that are necessary to define said solid resin support having a multifunctional chemical moiety covalently attached thereto (e.g., see figure 2). Applicants must further specify within the structure the trifunctional linker (e.g., see figure 2, element 230), core (e.g., see figure 2, element 105), membrane anchor (e.g., see figure 2, element 110), spacer (e.g., see figure 2, element 130), immobilization linker (e.g., see figure 2, element 220) and support (e.g., see figure 2, element 210). Applicant should NOT use general notations like  $R^1$ ,  $R^2$ , etc. when defining the structure because these labels represent more than one chemical group and thus more than one compound would be erroneously elected.

#### Subgroup 2: Species of reactive arm group (e.g., see claims 3-4)

Applicant must elect for purposes of search a *single species* of reactive arm group. Furthermore, applicant must show *all* atoms and bonds that are necessary to define said reactor group (e.g., see figure 2). Applicant should NOT use general notations like  $R^1$ ,  $R^2$ , etc. when defining the structure because these labels represent more than one

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chemical group and thus more than one compound would be erroneously elected. Applicants must also specify any protecting groups thereon (if any).

Subgroup 3: Species of solid-support (see claim 10)

Applicant must elect, for the purposes of search, a *single species* of solid support (e.g., polystyrene).

9. If applicant elects the invention of Group II, applicant is required to elect from the following patentably distinct species. Claim 11 is generic.

Subgroup 1: Species of multifunctional chemical moiety comprising an amino acid derivative (e.g., see claim 11)

Applicant must elect for purposes of search a *single species* of multifunctional chemical moiety comprising an amino acid derivative. Furthermore, applicant must show *all* atoms and bonds that are necessary to define said multifunctional chemical moiety comprising an amino acid derivative. Applicant should NOT use general notations like  $R^1$ ,  $R^2$ , etc. when defining the structure because these labels represent more than one chemical group and thus more than one compound would be erroneously elected.

Subgroup 2: Species of protective group if present (e.g., see claims 12-13)

Applicant must elect for purposes of search a *single species* of protective group if present. Furthermore, applicant must show *all* atoms and bonds that are necessary to define said protective group if present. Applicant should NOT use general notations like  $R^1$ ,  $R^2$ , etc. when defining the structure because these labels represent more than one chemical group and thus more than one compound would be erroneously elected. Applicants must also specify the molecule when it is deprotected (e.g., see claim 13).

Subgroup 3: Species of solid-support (see claim 14)

Applicant must elect, for the purposes of search, a *single species* of solid support (e.g., polystyrene).

10. If applicant elects the invention of Group III, applicant is required to elect from the following patentably distinct species. Claim 14 is generic.

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Subgroup 1: Species of bound multifunctional chemical moiety - solid resin support composite (e.g., see claim 14)

Applicant must elect for purposes of search a *single species* of bound multifunctional chemical moiety - solid resin support composite. Furthermore, applicant must show *all* atoms and bonds that are necessary to define said bound multifunctional chemical moiety - solid resin support composite (e.g., see figure 2). Applicants must further specify within the structure the trifunctional linker (e.g., see figure 2, element 230), core (e.g., see figure 2, element 105), membrane anchor (e.g., see figure 2, element 110), spacer (e.g., see figure 2, element 130), immobilization linker (e.g., see figure 2, element 220) and support (e.g., see figure 2, element 210). Applicant should NOT use general notations like  $R^1$ ,  $R^2$ , etc. when defining the structure because these labels represent more than one chemical group and thus more than one compound would be erroneously elected.

Subgroup 2: Species of solid-support (see claim 16)

Applicant must elect, for the purposes of search, a *single species* of solid support (e.g., polystyrene).

11. **Please Note:** Applicants must disclose which claims read on the elected species (see paragraphs 15 and 16 below).

12. The species are distinct, each from the other, because their structures and modes of action are different. They would also differ in their reactivity and the starting materials from which they are made. For different species of method, the method steps for each species would differ. Moreover, the above species can be separately classified. Consequently, the species have different issues regarding patentability and represent patentably distinct subject matter. Therefore, this does create an undue search burden, and election for examination purposes as indicated is proper.

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13. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

14. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

15. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

16. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).



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17. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.43). Because the above restriction/election requirement is complex, a telephone call to applicants to request an oral election was not made. See MPEP § 812.01.

18. Applicant is reminded that upon cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

19. Applicant is also reminded that a 1 – month (not less than 30 days) shortened statutory period will be set for response when a written requirement is made without an action on the merits. This period may be extended under the provisions of 37 CFR 1.136(a). Such action will not be an “action on the merits” for purposes of the second action final program, see MPEP 809.02(a).

20. Finally, Applicant is reminded that where applicant elects claims directed to a product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. **Process claims that depend from or otherwise include all the limitations of the patentable product** will be entered as a matter of

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right if the amendment is presented prior to final rejection or allowance, whichever is earlier.

Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai*, *In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.**

Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

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### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jon D Epperson whose telephone number is (571) 272-0808. The examiner can normally be reached Monday-Friday from 9:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on (571) 272-0811. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jon D. Epperson, Ph.D.  
October 26, 2004

EX-100  
Priority Document  
